

4WD-FFB

April 13, 1998

MEMORANDUM

SUBJECT: Assuring Land Use Controls at Federal Facilities

FROM: Jon D. Johnston, Chief
Federal Facilities Branch

TO: Federal Facilities Branch

I. PURPOSE AND APPLICABILITY

This memorandum establishes EPA Region 4 Federal Facilities Branch policy on measures to be taken to assure the long-term effectiveness of land use controls (LUCs) being relied upon to protect human health and the environment at contaminated federal facilities undergoing remediation pursuant to the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) and/or the Resource Conservation and Recovery Act (RCRA). The purpose of this policy is to establish uniform requirements for efficient oversight of LUC remedy components at federal facilities and to clarify our expectations and criteria for concurring on remedies including LUCs. This policy should not be interpreted as altering the Region's preference for active and permanent remedies consistent with CERCLA and RCRA remedy selection criteria. We continue to regard LUCs primarily as components of, or enhancements to, remedies which employ treatment that reduces toxicity, mobility, or volume as a principal element.

Effective with issuance of this memorandum, it is Federal Facilities Branch policy to require -- as a precondition to concurrence on any remedial and/or corrective action involving any reliance on one or more LUCs for the protectiveness of that action -- that the lead federal agency seeking EPA's concurrence commit itself to implementing a detailed written LUC Assurance Plan (LUCAP) designed to assure the effectiveness and reliability of the required LUC(s) for as long as any LUC continues to be required in order for the remedial/corrective action to remain protective.¹ Such a requirement is consistent with this Agency's obligation, for example under

¹ During the initial ninety (90) days after this policy is issued, the requirement for a federal agency to commit to a LUCAP may be waived as a precondition to EPA's concurrence on any action which, in the opinion of the Federal Facilities Branch Chief, might be unduly delayed if this precondition were applied.

CERCLA remedy-selection criteria established in the National Contingency Plan at 40 C.F.R. §300.430(e)(9)(iii), to assess the long-term reliability of ongoing remedial measures as part of evaluating a remedy's effectiveness in protecting public health and the environment. This policy applies with respect to federal facilities which are expected to remain in the control of the federal agency for the foreseeable future. Because of significant differences in the kinds of measures which may be required to assure the effectiveness of LUCs after property passes out of direct federal agency control, this policy is not specifically applicable to situations involving imminent transfer of the facility to a private party; however, the objectives of this policy -- to assure long-term effectiveness of LUCs -- and the approach this policy utilizes for such assurances may be utilized for some situations involving a property transfer. This policy is applicable to Region 4 federal facility: 1) CERCLA actions at NPL sites; and 2) HSWA corrective actions within non-HSWA authorized states. For their consideration as guidance, the policy will be provided to HSWA-authorized states and to those federal facilities taking CERCLA actions on non-NPL sites.

II. APPLICABLE DEFINITIONS

As used in this policy, the term "*Land Use Control*" or "*LUC*" in regard to real property on federal facilities should be broadly interpreted to mean any restriction or control, arising from the need to protect human health and the environment, that limits use of and/or exposure to any portion of that property, including water resources. This term encompasses "institutional controls," such as those involving real estate interests, governmental permitting, zoning, public advisories, deed notices, and other "legal" restrictions. The term may also include restrictions on access, whether achieved by means of engineered barriers such as a fence or concrete pad, or by "human" means, such as the presence of security guards. Additionally, the term may involve both affirmative measures to achieve the desired restriction (e.g., night lighting of an area) and prohibitive directives (no drilling of drinking water wells). Considered altogether, the "LUCs" for a facility, in conjunction with the base master plan, will provide a blueprint for how its property should be used in order to maintain the level of protectiveness which one or more remedial/corrective actions were designed to achieve.

The term "*Land Use Control Assurance Plan*" or "*LUCAP*" is a written installation-wide plan that sets out the procedure to assure LUCs remain effective over the long-term for all areas at the particular installation where they are required. Because of its procedural nature, there will normally be only one LUCAP per installation (although a number of "substantive" LUC Implementation Plans may be appended to it). Minimum contents of a LUCAP are listed below in Part A of Section IV.

The term "*LUC Implementation Plan*", as used in this policy, refers to a written plan, normally developed after a decision document has required one or more LUCs for some particular area (operable unit, contaminated unit, and/or solid waste management unit) which 1) identifies each LUC objective for that area (e.g., to restrict public access to the area for recreational use) and 2) specifies those actions required to achieve each identified objective (e.g., install/maintain a

fence, post warning signs, record notice in deed records). LUC Implementation Plans specify what must be done to impose and maintain the required LUCs, and are therefore analogous to design and/or operation and maintenance plans developed for active remedies.

The term “*decision document*,” as used in this policy, refers to CERCLA Records of Decision (RODs), RCRA Statements of Basis/ Notices of Decision, and RCRA Permit Modifications.

As used in this policy, the term “*facility*” refers to a military base or other entire federal installation, whereas the term “*site*” refers to a particular area (such as an “operable unit”) making up only a portion of the facility.

The term “*monitoring*” is used in this policy to indicate a variety of investigative activities, ranging from mere “drive-by” visual observations to detailed scientific sampling and testing. The nature of the particular Land Use Controls being implemented will determine the type(s) and extent of any “monitoring” activities provided for under this policy.

III. BACKGROUND

CERCLA and RCRA require cleanup of hazardous substances which have been released into the environment to a degree which is determined to be "protective of human health and the environment." How a piece of land is anticipated to be used in the future is frequently an important consideration in determining the extent of remediation necessary to achieve the required protectiveness. For example, assumptions about whether a piece of land is likely to be used in the future for residential or industrial activities may influence the evaluation of exposure pathways made during the baseline risk assessment, thereby affecting the likely exposure scenario, the resultant risk determined to be present, and consequently how much (if any) cleanup is needed to lower that risk to "protective" levels. Similarly, one or more aspects of a remedy chosen as the means of lowering the risk to "protective" levels may involve deliberate efforts to maintain or impose some limitation on future use of the property, such as limiting physical contacts with contaminated soil through engineered barriers or limiting legal rights to use ground water resources by recorded deed restrictions, covenants or "institutional controls."

In such circumstances, uncertainties about the future use assumptions and/or the ongoing effectiveness of the use limitations imposed are directly related to achievement of the central objective of the entire remediation process -- protection of human health and the environment. In light of EPA experience in this Region and elsewhere, that land use control and environmental protection programs have not been adequately coordinated to ensure adherence to LUCs, we believe that it is essential to adopt new, more reliable means for assuring that necessary LUCs are maintained. Because we regard inadvertent violations as the most probable reason why LUCs might not be maintained on federally-controlled property, we think that it is important for each federal facility relying on LUCs to commit to implementing an active LUC-monitoring process, and to raise the visibility of its LUCs through periodic reporting/certification by each such

facility's base commander or top civilian manager reaffirming the ongoing integrity of LUCs to EPA and state environmental regulators. As described below, this process should be embodied in a facility-specific Land Use Control Assurance Plan (LUCAP).

IV. IMPLEMENTATION

A. **Land Use Control Assurance Plan:** A LUCAP may be documented in a number of different ways, for example, in a Memorandum of Agreement (MOA) or a Federal Facility Agreement (FFA) between EPA, the State and the federal installation or service. The LUCAP should also be referenced in the base master plan. The LUCAP may be developed and signed prior to the next planned decision document in anticipation of its need, or its development within a specified time may be required by the next decision document, as a condition of EPA's concurrence. In the absence of an approved LUCAP or some specific, time-bound requirement for the development of one, the provisions of a LUCAP, as described below, shall be incorporated into any decision document that requires LUCs. Once the installation-wide LUCAP is in place, additional site-specific LUC Implementation Plans will be appended to it as final cleanup decisions are made.

All LUCAPs will include, at a minimum, the following:

- 1) A requirement that, after each decision document selecting any LUC, a LUC Implementation Plan must be developed and approved for the subject site (operable unit, corrective action unit and/or solid waste management unit). The LUC Implementation Plan must identify the land area under restriction (e.g., by a certified survey plat) and the LUC objectives for that area, and must specify the particular controls and mechanisms which will be used to achieve each identified LUC objective. Each site-specific LUC Implementation Plan will be attached to the LUCAP as it is approved so that the LUCAP will serve as a single facility-wide source documenting all LUCs.
- 2) Identification of the federal facility program and point-of-contact designated responsible for monitoring, maintaining and enforcing site-specific LUC Implementation Plans and site-wide LUCAP.
- 3) A commitment by the facility to request funds for maintaining LUCs in budget allocation requests.
- 4) A requirement for quarterly on-site monitoring by the facility for compliance with the LUC Implementation Plans throughout the remediation period, unless another monitoring frequency is approved in the LUC Implementation Plan.
- 5) A requirement for the facility to provide notification to EPA and state regulators and obtain their written concurrence whenever the facility anticipates any "major changes in

land use” (defined below) for the sites subject to LUCs. The facility should notify the regulatory agencies as soon as a major land use change is anticipated in order to allow sufficient time for regulatory review and amendments to remedy selection decision documents. Such notifications should be made to the regulatory agencies at least 60 days prior to a major change in land use and should include:

- a) an evaluation of whether the anticipated land use change will pose unacceptable risks to human health and the environment or negatively impact the effectiveness of the remedy;
- b) an evaluation of the need for any additional remedial action resulting from the anticipated land use changes; and
- c) a proposal for any necessary changes to the selected remedial action, and identification of procedural requirements (e.g., ROD amendment/RCRA permit modification) for the proposed changes.

The regulatory agencies should provide a written response in a timely manner after the facility’s notification and request for review, taking into account the need to minimize any adverse impact upon facility operations.

The following are considered “major changes in land use”:

- a) A change in land use that is inconsistent with the exposure assumptions in the risk assessment that was the basis for the LUCs (either human health or ecological risk assessment). For example, the human health risk assessment assumed that a site is in “caretaker” status with a worker visiting the site once a week for 2 hours, and the proposed change in land use would have the worker at the site for 8 hours a day, 5 days a week. Any change from industrial, commercial or recreational land use to a more sensitive land use, such as housing, schools, hospitals, and/or day-care centers is a major land use change. Similarly, any change from industrial or commercial land use to recreational land use is also considered “major changes in land use.” Further, any change in a land use that has been prohibited in order to protect the environment is also a major land use change. For example, an area with residual contamination may be prohibited from being used for creation of wetland habitat and the land use change would result in the creation of a wetland.
 - b) Any action that may disrupt the effectiveness of the remedial action. For example, excavation at a landfill, groundwater pumping that may impact a groundwater pump and treat system, or a construction project that may result in unacceptable exposure to an ecological habitat protected by the remedy.
 - c) Any other action that might alter or negate the need for the LUC. For example, any plan to actively remediate a site subject to LUCs in order to allow for unrestricted use.
- 6) A requirement for the facility to conduct field inspections at least annually to assess the

conditions of all sites subject to LUCs. These inspections shall determine whether the current land use remains protective and consistent with all remedial action/corrective measures objectives outlined in the decision document.

- 7) A requirement for the designated official responsible for the facility operations (e.g., DOD Base Commander, DOE Site Manager) to certify the continued compliance with all site-specific LUC Implementation Plans described in an annual report to specified EPA and State officials. The annual report shall also serve to notify agencies of a change in designated officials or of land use changes that are not considered major under subparagraph 5 above.
- 8) A requirement for the facility to notify EPA and the State immediately upon discovery of any unauthorized “major change in land use” or any activity inconsistent with any LUC Implementation Plan and to describe what actions will be taken to ensure protectiveness.
- 9) A requirement for advance notification to EPA and the State in the event of that the facility contemplates any transfer, by sale or lease, of sites subject to LUCs in order to ensure adoption of such additional measures as may be needed to assure continued compliance with LUCs on the transferred property.

B. Decision Documents: All decision documents for sites at which the remedy involves LUCs will require reasonable assurances that LUCs will be effectively maintained and monitored. Compliance with a LUCAP which includes the minimum provisions listed above in Part A of this Section is one method for satisfying this requirement. Decision documents establishing LUCs shall specify the general land use designation, the associated land use exposure assumptions and the general LUC objectives. The following information should be specified in any decision document requiring LUCs:

- 1) Assumptions made concerning current and expected future land use designation/exposure scenarios. The land use scenario(s) used in risk assessment upon which the risk management and remedy decisions are premised should be stated. Identify the Lead Agency’s Current and Future Land Use Designation, how such designations were developed, and the human health/ecological exposure scenarios which may not be protective under less restrictive land uses. Specify the time period necessary for remediation/corrective measures and LUCs.
- 2) Identification of the LUC objectives that are necessary to ensure the protectiveness of the remedy decision. Specific means to achieve the LUC objectives may be included in the decision document on a case-specific basis. In general, the specific means of achieving the LUC objectives will be included in the site-specific LUC implementation plan.
- 3) A requirement to develop a site-specific LUC Implementation Plan, which will include site-specific controls and controls necessary to assure the protectiveness of the selected

remedy. The LUC Implementation Plan may include, for example, site access controls, site security, operation and maintenance activities necessary to maintain any physical access control features, drilling controls, groundwater use controls, signs, etc.

C. **Existing Decision Documents with LUCs**: At some federal facilities one or more previously completed decision documents containing LUCs are currently in place. EPA intends to address these issues as a part of the 5 Year Review and/or as a part of the the HSWA permit review. The review process should include an analysis of the effectiveness of LUCs, with emphasis on those LUCs not subject to a LUCAP. This policy is not intended to imply automatic reopening of previously completed decision documents. As needs are identified, EPA, in coordination with the state, will negotiate a schedule for developing LUC Implementation Plans with the affected facility. These LUC Implementation Plans will then be appended to the facility-wide LUCAP. If a facility-wide LUCAP has not been developed, EPA will require submission of a LUCAP at the time the site-specific LUC implementation plans are due, in accordance with the negotiated schedule.

V. DISCLAIMER

This memorandum is intended solely to guide employees of the Federal Facilities Branch, EPA Region 4, in carrying out their responsibilities with respect to federal facility actions to which the guidance is expressly made applicable. It is also being distributed to HSWA-authorized Region 4 states and to certain federal facilities taking CERCLA actions at non-NPL sites within Region 4 for their consideration as guidance. This policy does not constitute rulemaking by EPA and does not create legal rights or obligations in any person or entity.

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